ExxonMobil
Refining & Supply Company
5000 Bayway Drive
P.O. Box 4004
Baytown, Texas 77522-4004



2017 OCT 11 PM 2: 37





October 6, 2017

Chief
Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
P.O. Box 7611,
Ben Franklin Station
Washington, DC 20044-7611
Reference Case No. 90-5-2-1-07030

Environmental Protection Agency Director, Air Enforcement Division Office of Regulatory Enforcement Ariel Rios Building, Mail Code 2242-A 1200 Pennsylvania Avenue, N.W. Washington, DC 20460

Chief
Air, Toxics, and Inspections Coordination Branch
Environmental Protection Agency, Region 6
1445 Ross Avenue

Dallas, Texas 75202-2733

Re: 30-Day Update of the Notification of Force Majeure Event and Request for Enforcement Discretion as a Result of Hurricane Harvey for ExxonMobil Baytown Refinery (BTRF), ExxonMobil Baytown Chemical Plant (BTCP), ExxonMobil Baytown Olefins Plant (BOP), ExxonMobil Baytown Technology and Engineering Complex (BTEC), ExxonMobil Mont Belvieu Plastics Plant (MBPP).

Dear Sirs and Madams:

Pursuant to Paragraph 218 of the Consent Decree (CD) between the United States and Exxon Mobil Corporation (ExxonMobil), and ExxonMobil Oil Corporation entered on December 13, 2005, ExxonMobil submitted notice on September 8, 2017 (see Attachment 1), that a Force Majeure event occurred as a result of Hurricane Harvey. This Force Majeure event impacted the ability of BTRF to comply with various provisions of the CD and CD requirements incorporated into NSR permit number 18287/PSDTX730M4/PAL7. Since Hurricane Harvey also impacted the ability of the ExxonMobil Baytown and Mont Belvieu facilities (BTRF, BTCP, BOP, BTEC and MBPP) to comply with various provisions of state and federal air regulations, ExxonMobil also included a request for Enforcement Discretion in the same letter.

Per our commitment in the original notice letter, this letter provides an update on the shutdown and subsequent recovery and startup activities from Hurricane Harvey for the ExxonMobil Baytown and Mont Belvieu facilities.

30-Day Update of the Notification of Force Majeure Event and Request for Enforcement Discretion as a Result of Hurricane Harvey October 6, 2017

1. Fluid Catalytic Cracking Unit (FCCU) NOx Limits (NSR CD Paragraphs 16, 20, 43a and 40 CFR 60 Subparts J/Ja)

BTRF is currently required by the CD and Title V permit conditions to comply with short-term (7-day rolling average) and long-term (365-day rolling average) NOx limits. Paragraph 20 of the CD provides exemptions from compliance for startup, shutdown and malfunctions (SSM) related to an FCCU and malfunctions related to its associated NOx control system.

Based on the preliminary review of our FCCU-2 NOx data, there is no indication that the 7-day rolling average NOx limit was exceeded. If potential exceedances are identified, we believe that these exceedances qualify for the SSM exemptions in the CD. A preliminary review of the FCCU-3 data indicates that the 70 ppm NOx 7-day rolling average limit was exceeded. We believe that these exceedances are covered under the Force Majeure claim as per CD Paragraph 218. At this time, we have not identified any present or likely future exceedances of the NOx 365-day rolling average limit for either FCCU.

We request Enforcement Discretion for any 40 CFR 60 Subparts J/Ja issues identified as a result of the impacts of Hurricane Harvey.

2. FCCU SO2 Limits (NSR CD Paragraphs 23, 24, 31, 43a and 40 CFR 60 Subparts J/Ja)

BTRF is currently required by the CD and Title V permit conditions to comply with short-term (7-day rolling average) and long-term (365-day rolling average) SO2 limits. Based on preliminary review of the SO2 data for our FCCU units, there is no indication that the 7-day rolling average or the 365-day rolling average SO2 limits were exceeded. If potential exceedances are identified, we believe that these exceedances are covered under the Force Majeure claim as per CD Paragraph 218.

Paragraph 31 of the CD provides exemptions from compliance for malfunctions related to an FCCU and its associated Wet Gas Scrubber, and we believe that these exemptions should be considered applicable for any FCCU SO2 exceedance which occurred during the shutdown period and the extended startup activities. ExxonMobil requests that the daily average concentrations during Hurricane Harvey shutdown and startup activities be excluded from the long-term averaging period calculation.

3. FCCU CO Limits (NSR CD Paragraphs 39, 41, 43c, 40 CFR 60 Subparts J/Ja and 40 CFR 63 Subpart UUU regulations)

A preliminary review of the data for our FCCUs indicates that the shutdown and subsequent startup of the FCCUs resulted in exceedances of the 500 ppmv CO limit at both FCCUs. CD Paragraph 41 provides exemptions from compliance for startup, shutdown and malfunctions related to an FCCU and malfunctions related to its associated CO control system. We believe that the FCCU-2 exceedance qualifies for the SSM exemptions. We believe that the FCCU-3 exceedance is covered under the Force Majeure claim as per CD Paragraph 218.

A preliminary review of the data for FCCU-3 indicates that the 1% O2 in the regenerator was not met for approximately one (1) hour during the shutdown and subsequent recovery and startup activities. We request Enforcement Discretion for any 40 CFR 63 Subpart UUU issues identified

as a result of the impacts of Hurricane Harvey.

4. FCCU PM/Opacity Limits (NSR CD Paragraphs 34a, 36, 43b, 43d, 40 CFR 60 Subparts J/Ja and 40 CFR 63 Subpart UUU regulations)

BTRF FCCUs are required to maintain minimum liquid/gas ratios across the Wet Gas Scrubbers and maximum overhead stack temperatures to demonstrate compliance with PM and opacity limits, as specified in the approved Alternative Monitoring Plans (AMP). A preliminary review of the data indicates that the shutdown and subsequent startup activities of FCCU-2 resulted in excursions of monitoring parameter limits at the Wet Gas Scrubber. Paragraph 36 provides exemptions from PM limit compliance for malfunctions related to an FCCU and its associated Wet Gas Scrubber. We believe that these exemptions should be considered applicable for the any FCCU PM exceedance which occurred during the shutdown and subsequent recovery and startup periods. We request Enforcement Discretion for any 40 CFR 63 Subpart UUU issues identified as a result of the impacts of Hurricane Harvey.

5. Flares - Acid Gas and Hydrocarbon Flaring (NSR CD Paragraphs 73, 79, 80, 86i and 92, 40 CFR 60 Subparts J/Ja and NSR Permit 18287/PSDTX730M4/PAL7)

During the shutdown and subsequent recovery and startup activities associated with Hurricane Harvey, ExxonMobil made all reasonable efforts to minimize refinery gas flaring. However, some Hydrocarbon Flaring and some Acid Gas Flaring occurred during the unit the shutdown and subsequent recovery and startup activities. During the shutdown and subsequent recovery and startup activities of BTRF, some amount of acid gas had to be managed until the Sulfur Conversion Unit 2 (SCU 2) was started. During the shutdown and subsequent recovery and startup activities, the acid gas produced was flared at Flare Stacks (FS) 4, 6, 19, 22 and 25.

BTRF personnel availability has been limited due to supporting the recovery efforts and extended startup activities; therefore, an additional 45 days may be required to complete the Acid Gas Flaring Incident Investigation and submit the report required by CD Paragraph 80. We believe that this additional time is covered under the Force Majeure claim as per CD Paragraph 218.

The Acid Gas Flaring and Hydrocarbon Flaring associated with Hurricane Harvey have ended. We believe that the Acid Gas and Hydrocarbon Flaring caused by the impacts of Hurricane Harvey are covered under the Force Majeure claim as per CD Paragraphs 86i and 218. Additional details on excess emissions and mitigation activities will be provided in the next update. The Hydrocarbon Flaring Investigations will be included in the next CD Semiannual Report (SAR) due on February 28, 2018 as required by the CD.

Manual 40 CFR 60 Subpart Ja samples were collected to determine the total sulfur content used to evaluate and establish baseline parameters associated with the threshold to trigger the root cause analysis. However, the manual sample results used may not be representative of normal operating conditions. Additional samples will be collected to re-establish baseline parameters that are representative of normal operating conditions.

BTRF personnel availability has been limited due to supporting the recovery efforts and

extended startup activities; therefore, an additional 45 days may be required to conduct the root cause and corrective action analyses required per 40 CFR 60 Subpart Ja for flares with SO2 emissions greater than 500 lbs in a 24-hr rolling period and/or flow above baseline greater than 500 kscf in a 24-hr rolling period. We request Enforcement Discretion for any 40 CFR 60 Subpart Ja issues while conducting the root cause and corrective action analyses as a result of the impacts of Hurricane Harvey.

Three (3) corrective actions associated with a Hydrocarbon Flaring Incident on April 27, 2017 due on November 01, 2017 may not be completed until 1Q2018. The corrective actions were to: (1) update MFD to show CT-58 as the D-027A water source, (2) update CLEUs flaring checklist to include step to check seal level and (3) car seal open water path to D-027A. During the immediate aftermath after Hurricane Harvey, BTRF personnel responsible for implementing the corrective actions were allocated to support recovery efforts and extended startup activities. We believe that this extension is covered under the Force Majeure claim as per CD Paragraph 218.

Flares at BTRF experienced Hydrocarbon Flaring as a result of shutdown and subsequent recovery and startup activities associated with Hurricane Harvey. We believe that Hydrocarbon Flaring is covered under the Force Majeure claim as per CD Paragraph 218. In addition, multiple flares at the ExxonMobil Baytown facility may have experienced pilot outages, low net heating value and/or elevated exit velocity (which are regulated under federal and/or state regulations and which we believe qualify for SSM exemptions) as a result of shutdown and subsequent recovery and startup activities associated with Hurricane Harvey. We request Enforcement Discretion for any flare issues identified as a result of the impacts of Hurricane Harvey.

6. <u>Heaters, Boilers and Other Fuel Gas Combustion Devices (Other than Flaring Devices) (NSR CD Paragraph 59a, 40 CFR 60 Subparts J/Ja and NSR Permits 18287/PSDTX730M4/PAL7, 5259, 20211/PAL16 and 96220)</u>

BTRF is currently required by the CD and Title V permit conditions to comply with the H2S limits for fuel gas combusted at heaters, boilers and other fuel gas combustion devices (other than flaring devices). Hurricane Harvey shutdown and subsequent recovery and startup activities resulted in exceedances of the 162 ppm H2S 3-hr rolling average limit at the Refinery Fuel Gas Systems. BTRF Fuel Gas Systems operations have stabilized and returned to normal. We believe that these exceedances are covered under the Force Majeure claim as per CD Paragraph 218.

BTCP receives fuel from the BTRF Fuel Gas Systems and is required by NSR and Title V permit conditions to comply with the H2S limits for fuel gas. Hurricane Harvey shutdown and subsequent recovery and startup activities may have resulted in potential exceedances of H2S limits for fuel gas at BTCP. We request Enforcement Discretion for any BTCP fuel gas issues identified as a result of the impacts of Hurricane Harvey.

7. Sulfur Recovery Unit Limits - Preventative Maintenance and Operations (PMO) Plans, Sulfur Pits, Tail Gas Incineration (NSR CD Paragraphs 64, 65, 86i and 91, 40 CFR 60 Subpart J, NSR Permit 18287/PSDTX730M4/PAL7 and 40 CFR 63 Subpart UUU)

As part of equipment shutdowns within BTRF due to Hurricane Harvey, SCU 2 was shut down completely. During this total shutdown and subsequent "cold" restart of SCU 2, BTRF was not

able to meet the 40 CFR 60 Subpart J performance standards for sulfur recovery units. In addition, it was necessary to bypass the tail gas clean-up unit (TGCU) and vent directly to the incinerators while the tail gas units were restarted and brought to normal operations.

Hurricane Harvey shutdown and subsequent recovery and startup activities resulted in exceedance of the 10 ppm H2S 12-hr rolling average limit and the 300 ppm TRS 12-hr rolling average limit at the Absorber Effluent Desuperheater Tower (T-601). The bypass of the TGCU resulted in a Tail Gas Incident in which emissions exceeded the 500 lbs SO2 in a 24-hr rolling period as calculated in CD Paragraph 91 at Incinerators F-529, F-549 and F-702. Additionally, the 250 ppm SO2 12-hr rolling average limit at Incinerators F-529, F-549 and F-702 was exceeded and Sulfur Pit C and Sulfur Drum D vented to atmosphere in excess of the 40 CFR 60 Subpart J standard for sulfur plants. A preliminary review of temperature data indicates that SCU 2 Incinerators F-529, F-549 and F-702 were intermittently operated below the required 1200°F and potentially below the combustion efficiency temperature during startup activities. We believe that these exceedances are covered under the Force Majeure claim as per CD Paragraph 218. We request Enforcement Discretion for any 40 CFR 63 Subpart UUU issues identified as a result of the impacts of Hurricane Harvey.

During the shutdown and subsequent recovery and startup activities, every reasonable effort was made to minimize and/or eliminate these periods during which the standards were exceeded. SCU 2 operations have now stabilized, and the unit is in compliance with the 40 CFR 60 Subpart J emission standards for sulfur recovery units. We believe that the exceedances of the sulfur plant standards caused by the impacts of Hurricane Harvey are eligible for the SSM exemptions. Evaluation is still ongoing to verify that the PMO Plans required by the CD were followed during the shutdown and subsequent recovery and startup periods. We believe any deviation from PMO Plans as a result of the impacts of Hurricane Harvey is covered under the Force Majeure claim as per CD Paragraph 218.

Due to BTRF personnel supporting the recovery efforts and extended startup activities, up to an additional 45 days may be required to complete the Tail Gas Incident Investigation and submit the report required by CD Paragraph 80. We believe that this additional time is covered under the Force Majeure claim as per CD Paragraph 218.

8. Leak Detection and Repair (Paragraphs 123 - 130 and other federal regulations requiring the use of Method 21 to monitor fugitive emissions and NSR Permits 18287/PSDTX730M4/PAL7, 20211/PAL16 and 3452/PSDTX302M2/PAL6)

The ExxonMobil Baytown facility was unable to complete fugitive emissions monitoring and inspections on some components for which monitoring or inspection was required during the months of August and September 2017. The inability to complete this monitoring is primarily related to the flooding in late August and the extended startup after Hurricane Harvey in September. All monitoring and inspections at BTCP and BOP have since been completed. As noted in the original Notice Letter dated September 8, 2017, components already on Delay of Repair before the Hurricane were not repaired prior to the restart of the facilities. These Delay of Repair components will be repaired or replaced during the next shutdown of the respective units. We believe that any issues related to LDAR in the BTRF as a result of the impacts of Hurricane Harvey are covered under the Force Majeure claim as per CD Paragraph 218. We

request Enforcement Discretion for any issues related to LDAR in the other plants as a result of the impacts of Hurricane Harvey.

9. <u>Benzene Waste NESHAP (NSR CD Paragraphs 98, 102, 105, 108 and 112 and 40 CFR 61 Subpart FF)</u>

We obtained the initial analyses of our benzene wastewater sampling during the period of impact of Hurricane Harvey and subsequent recovery and startup operations. The results from BTRF indicated that the benzene concentrations in wastewater appear to be only slightly higher than concentrations during normal operations. Consequently, our preliminary assessment is that Hurricane Harvey and its resulting impacts only minimally impacted the BTRF CD 1.5 Mg quarterly Benzene Quantity (BQ) and the annual 6 Mg BQ. Preliminary evaluations of the impacts on the annual 2 Mg BQ limits at BTCP and BOP indicate that there were no activities during Hurricane Harvey that may result in exceedance of the annual 2 Mg BQ limit. We believe that any issues related to Benzene Waste NESHAP in the BTRF as a result of Hurricane Harvey and its resulting impacts are covered under the Force Majeure claim as per CD Paragraph 218. We request Enforcement Discretion for any issues related to Benzene Waste NESHAP in the other plants as a result of the impacts of Hurricane Harvey.

10. Continuous Emissions Monitoring Systems (CEMS) or Continuous Parameter Monitoring System (CPMS) (NSR CD Paragraphs 21, 32, 42, 54, 64b, 73, 40 CFR Appendices, other federal regulations requiring continuous monitoring and NSR Permits 18287/PSDTX730M4/PAL7, 20211/PAL16 and 3452/PSDTX302M2/PAL6)

The shutdown of some units caused several CEMS/CPMS to malfunction, resulting in monitoring system downtimes and/or data gaps. Due to the impacts of Hurricane Harvey on personnel's ability to return to work, some of the CEMS analyzers may not have completed daily validations and proper adjustments may not have been made following a failed validation. In addition, due to the monitoring system downtimes, some CEMS/CPMS may not meet applicable uptime requirements.

We are continuing to confirm the validity of all CEMS/CPMS to ensure compliance with 40 CFR 60 Subparts J/Ja and other appropriate federal regulations related to CEMS/CPMS operations. CEMS/CPMS have extensive electronic components, and problems related to the unprecedented rainfall may manifest themselves at any time for several months after the event.

We believe that any issues related to CD CEMS/CPMS as a result of the impacts of Hurricane Harvey are covered under the Force Majeure claim as per CD Paragraph 218. We request Enforcement Discretion for any issues related to other CEMS/CPMS as a result of the impacts of Hurricane Harvey.

11. Storage Tanks (40 CFR 60 Subparts K, Ka, Kb and 40 CFR 61, 40 CFR 63 and NSR Permits 18287/PSDTX730M4/PAL7, 20211/PAL16, 96220, 8586, 9571, 28441, 36476/PSDTX996M1 and 3452/PSDTX302M2/PAL6)

The roofs of BTRF Tanks 347, 802, and 901 were submerged due to water accumulation on the roof during heavy rainfall associated with Hurricane Harvey. These tanks were removed from service for inspection and repairs. We are still reviewing the status of other tanks in the

ExxonMobil Baytown facilities. It is possible that additional issues may be identified as a result of the Hurricane, such as roof damage, landing the tank roof on its legs, loss of vapor recovery systems, etc. We request Enforcement Discretion for any storage tank issues as a result of the impacts of Hurricane Harvey.

12. NOx Limits for Turbine Generators (40 CFR 60 Subpart GG)

The initial review of the CEMS data from our Turbine Generators indicates that there were no exceedances of the 40 CFR 60 Subpart GG emissions standard caused by the impact of Hurricane Harvey.

13. Compliance with Title V Emissions Limits and Other Specific Requirements

The shutdown and subsequent recovery and startup activities associated with Hurricane Harvey at ExxonMobil Baytown and Mont Belvieu facilities may have resulted in exceedances of federally enforceable air emission limits and potential non-compliances with other specific requirements in the Title V permits. Potential compliance issues associated with Hurricane Harvey may be covered under the Force Majeure claim as per CD Paragraph 218, SSM exemptions and/or Enforcement Discretion.

14. <u>Hazardous Organic NESHAP (HON) (40 CFR 63 Subparts F, G, H) and Miscellaneous Organic NESHAP (MON) (40 CFR 63 Subpart FFFF) and other federal regulations</u>

We are still reviewing operating data associated with compliance with these regulations. However, data gaps and instances in which the SSM Plans were not followed have been identified. Preliminary review of temperature data indicates that the BTCP Hot Oil Heater (MPUF2074) operated at a temperature below its minimum combustion temperature limit established during the performance test. There is a possibility that additional non-compliance with emissions limits, reporting requirements and recordkeeping requirements. may have occurred. We request Enforcement Discretion for any issues identified as a result of the impacts of Hurricane Harvey.

15. Other Federal and State Air Regulations / Permitting Requirements

We are still assessing the impacts of Hurricane Harvey under various other federal and state air regulations. At this time, we have identified the issues summarized below; however, there is a possibility that additional non-compliance with emissions limits, reporting requirements and recordkeeping requirements. may have occurred. We request Enforcement Discretion for any issues identified as a result of the impacts of Hurricane Harvey.

BTRF:

- Pressure instrument data indicates that the FCCU-2 Wet Gas Scrubber bypass line was open during Hurricane Harvey. We are still evaluating if there were potential emissions associated with the bypass line being opened.
- Visible emissions from multiple flares occurred for a duration longer than allowed by rule.
- Daily opacity / visible emissions observations were missed from August 27, 2017 through August 29, 2017 as the site was not accessible.
- The 400 ppm CO 24-hr rolling average limit was potentially exceeded on Flexicoker (FXK)
 WHB, FXK Bypass and FCCU-3.

- The sample collection was potentially missed on some flare HRVOC analyzers that were out of service for greater than eight (8) hours.
- There may be potential non-compliances with NSR Permit 18287/PSDTX730M4/PAL7 Special Conditions and permit limits.

BTCP:

- Visible emissions from multiple flares may have occurred for a duration longer than allowed by rule.
- There may be potential non-compliances with NSR Permits 20211/PAL16, 4600, 28441, 36476/PSDTX996M1, 5259, 8586, 9571, and 96220 Special Conditions and permit limits.

BOP:

- Visible emissions from multiple flares occurred for a duration longer than allowed by rule.
- The site-wide Electrical Generating Facilities (EGF) Daily NOx limit was exceeded on August 31, 2017 and September 01, 2017.
- The site-wide VOC permit limit was exceeded from August 27, 2017 7:00 am August 28, 2017 10:59 am.
- The HRVOC hourly 1,200 lb limit was exceeded from August 27, 2017 10:00 am August 27, 2017 10:59 am.
- The August monthly opacity reading for Trains 1-5 and Furnaces and the last weekly visible inspection on the pipeline were not performed.
- The 400 ppm CO 24-hr rolling average limit was potentially exceeded on Boiler A.
- The sample collection was potentially missed on some flare HRVOC analyzers that were out of service for greater than eight (8) hours.
- There may be potential non-compliances with NSR Permit 3452/PSDTX302M2/PAL6 Special Conditions and permit limits.

MBPP:

• The steam supply interruption created by conditions associated with Hurricane Harvey resulted in flare visible emissions for a duration longer than allowed by rule.

As stated in the original Notice Letter dated September 8, 2017, all reporting on the above items will be performed as specified in the CD or in applicable regulatory and/or Title V reports. In addition, we will report BTRF excess emissions resulting from this situation in the next CD SAR and in other reports as required by federal and/or state air regulations.

If you have any questions or concerns about this notice, please contact Isabel M. Rivero at 281-834-1992.

JOSTOOT KOND

Jeff Kovacs, P.E., CSP Baytown Complex SSHE Manager 30-Day Update of the Notification of Force Majeure Event and Request for Enforcement Discretion as a Result of Hurricane Harvey October 6, 2017

cc:

Director, Air Enforcement Division
Office of Regulatory Enforcement
c/o Matrix New World Engineering, Inc. 26 Columbia Turnpike
Florham Park, NJ 07932
CERTIFIED MAIL

Scott Pruitt
EPA Administrator Mail Code 1101A
1200 Pennsylvania Ave., NW Washington, DC 20460
CERTIFIED MAIL

Lawrence Starfield, Acting Assistant Administrator Air Enforcement Division Director Mail Code 2201A 1200 Pennsylvania Ave., NW Washington, DC 20460 CERTIFIED MAIL

Samuel Coleman Region 6 Administrator 1445 Ross Avenue Suite 1200 Mail Code: 6RA Dallas, TX 75202-2733 CERTIFIED MAIL

Richard Hyde Executive Director
Texas Commission on Environmental Quality Mail Code 109
P.O. Box 13087
Austin, TX 78711-3087
CERTIFIED MAIL

Texas Commission on Environmental Quality Region 12 5425 Polk St, Ste H Houston TX 77023-1452 CERTIFIED MAIL

Electronic Copies:
foley.patrick@epa.gov
R6CAACDDeliverables@epa.gov
jmack@matrixneworld.com
fried.gregory@epa.gov
Lundelius.diana@epa.gov
thompson.steve@epa.gov
jones.john-l@epa.gov

ExxonMobil Chemical

Post Office Box 4004 Baytown, TX 77522-4004

ExonMobil Chemical

CERTIFIED MAIL®



7016 0340 0000 8024 9882



OCT 11 2017

FIRST CLASS MAIL

U.S.E.P.A. MC IIDIA 1200 PENNSYLVANIA AVENUE, N.W. WASHINGTON, DC 20460

ATT: SCOTT Pruitt

Route

EPA Mail

To: Pruitt, Scott

Mailstop ARN

Department: 1101A

Certified



70160340000080249882